

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

PROPOSED ADJUSTMENT OF THE WHOLESALE )	
WATER SERVICE RATE OF THE CITY OF )	CASE NO. 2002-00023
RUSSELLVILLE, KENTUCKY )	

ORDER

The city of Russellville, Kentucky ( Russellville ) proposes to adjust the rate of wholesale water service to East Logan Water District ( East Logan District ) and North Logan Water District ( North Logan District ) (collectively the Districts ) from \$1.55 per 1,000 gallons to \$2.45 per 1,000 gallons, or 58 percent. By this Order, the Commission denies the proposed adjustment and authorizes Russellville to increase its wholesale water service rate to \$2.24 per 1,000 gallons.

COMMENTARY

Russellville is a city of the fourth class. KRS 81.010(4). It operates a water treatment and distribution system that provides retail water service to approximately 2,505 customers and wholesale water service to the Districts.

PROCEDURE

On December 20, 2001, Russellville filed a proposed revision to its existing rate for wholesale water service to the Districts.<sup>1</sup> Upon the Districts' objections to the proposed rate and after finding that further proceedings were necessary to determine

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<sup>1</sup> KRS 278.190(3) requires that the Commission render a final decision on Russellville's proposed rate no later than 10 months after the filing of its schedule. This 10-month period ended on October 19, 2002. As October 19, 2002 is a Saturday, KRS 446.030(1)(b) provides that this statutory period ends on October 21, 2002.

the reasonableness of the proposed rate, the Commission suspended the proposed rate until June 19, 2002 and established a procedural schedule. The Commission further granted the Districts leave to intervene in this proceeding.

Following discovery in this proceeding, the Commission held a public hearing on the proposed rate on September 24, 2002. Testifying at this hearing were Brents Dickinson, professional engineer, BDIII Engineers PLLC, and Keith Batchelor, Financial Administrator, Consolidated Infrastructure Management Authority. This case stood submitted for decision on October 1, 2002 when Russellville submitted written responses to requests for production of documents made at the public hearing.

#### TEST PERIOD

Russellville proposes and the Commission accepts the 12-month period ending June 30, 2002 ( Fiscal Year 2002 ) as the test period for determining the reasonableness of the proposed rate. In using this historic test period, the Commission has given full consideration to appropriate known and measurable changes.

#### REVENUES AND EXPENSES

##### Operating Expenses

During Fiscal Year 2002, Russellville reported operating expenses of \$1,540,431<sup>2</sup> to operate its water treatment and distribution facilities. The Districts have not disputed the accuracy or reasonableness of these expenses. We find, however, that several adjustments should be made to these expenses to better reflect pro forma

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<sup>2</sup> Operation & Maintenance	\$ 1,264,032
Depreciation Capitalized O&M	+ 170,474
Depreciation Bonded Facilities	+ 105,925
Total Operating Expenses	<u>\$ 1,540,431</u>

operations. These adjustments, which are set forth below, reduce Russellville's test-period operating expenses by \$111,414 to a pro forma level of \$1,429,017.

Salaries and Wages. Russellville reports a test-period level of salaries and wages expense of \$550,917. Mr. Batchelor testified that during the test period Russellville formed the Consolidated Management Authority ( CMA ) to manage its water and sewer operations.<sup>3</sup> The formation of CMA resulted in changes to allocation of employee salaries between the city and its water and sewer divisions.<sup>4</sup> Mr. Batchelor also testified that, since the end of the test period, the water division no longer employs several employees.<sup>5</sup>

Russellville provided an updated employee schedule, which includes the employee position, the annual salary using the hourly rates effective September 1, 2002, and the amounts of salary allocated to the water and sewer divisions.<sup>6</sup> Using this schedule, the Commission calculates a pro forma salaries and wages expense of \$483,405 reflecting the current employee level and management cost of CMA. Accordingly, we have decreased test-period salaries and wages expense of \$550,917 by \$66,792.

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<sup>3</sup> Transcript ( Transcript ) of Hearing of September 24, 2002 at 65.

<sup>4</sup> Id. at 79 - 80.

<sup>5</sup> Id. at 77.

<sup>6</sup> Letter from C. Robert Hodges, Russellville City Attorney to Gerald Wuetcher, Counsel, Public Service Commission (Sept. 30, 2002), Enclosure 8.

Other Maintenance. Russellville provided a schedule of the items that were recorded in Account No. 6075-001, Other Maintenance.<sup>7</sup> After reviewing this schedule, the Commission finds that Russellville had expensed the following capital expenditures:

Services	\$ 2,899
Electronic Meter Reader	\$ 1,711
Filter Sand/Anthracite	\$ 5,005
Water Line Construction	\$ 11,082

Generally accepted accounting practices require capital expenditures to be depreciated over their estimated useful lives. Therefore, we have reduced other maintenance expense by \$20,697 to eliminate the capital expenditures from Russellville's test-period operating expenses and have provided for the recovery of these capital expenditures in the depreciation expense adjustment.

We further find that Russellville expensed a \$12,406 pump repair. This non-recurring expenditure should be amortized. We have, therefore, reduced other maintenance expense by an additional \$12,406 to remove the cost of the pump repair, which results in a total reduction to other maintenance expense of \$33,093. A provision for the recovery of the non-recurring pump repair is included in the amortization expense adjustment.

Water Line Maintenance. Based upon our review of the items that Russellville recorded in Account No. 6070-001, Water Line Maintenance,<sup>8</sup> we find that Russellville expensed the following capital expenditures:

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<sup>7</sup> Id. at Enclosure 4.

<sup>8</sup> Id. at Enclosure 1.

Meters	\$ 355
Meter Boxes	\$ 2,762
Services	\$ 5,394
Valves	\$ 3,698
Hydrants	\$ 3,917
Electrode	\$ 537
Water Line Construction	\$ 18,018

We have reduced water line maintenance expense by \$34,681 to eliminate these capital expenditures from Russellville's test-period operating expenses and have provided for the recovery of these capital expenditures in the depreciation expense adjustment.

Russellville incorrectly reported \$2,460 of sewer expenditures as operating expenses of its water division. Accordingly, we have decreased water line maintenance by \$2,460 to eliminate the misclassified expenditures for a total reduction to water line maintenance of \$37,471.

Legal Professional. Russellville recorded a test-period level of legal/professional expense of \$64,273. Mr. Batchelor acknowledged that the level of this expense in Fiscal Year 2002 is not representative of normal operations and that the test-period level might be higher due to the changeover from the city management to CMA.<sup>9</sup> Upon our review of this expense account, we found the following nonrecurring or abnormal expenditures: \$17,812 for legal fees related to Case No. 2001-00212;<sup>10</sup> \$4,651 of engineering fees related to construction projects; and \$13,488 of misclassified testing fees. Removing these expenditures results in a pro forma level of legal/professional expense of \$35,951.

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<sup>9</sup> Transcript at 69.

<sup>10</sup> Case No. 2001-00212, East Logan Water District and North Logan Water District v. City of Russellville, Kentucky (Ky.PSC July 3, 2002). Given the circumstances that led to that proceeding, namely Russellville's failure to obtain the approval of its legislative body prior to filing its proposed wholesale rate with the Commission and its failure to follow the procedures in Administrative Regulation 807 KAR 5:011 in filing its proposed rate, we find these legal fees are unreasonable and should be disallowed for rate-making purposes.

We have increased water treatment expense by \$13,488 to reflect the correct classification of the testing fees.

Kentucky Infrastructure Authority ( KIA ) Fee. Russellville pays KIA a loan servicing fee based on the outstanding loan balance on the date of the scheduled principal and interest payment. Using the amortization schedules for Russellville s existing KIA loan, the Commission calculates a 3-year average KIA loan servicing fee of \$1,479. Accordingly, we have increased Russellville s test-period operating expenses by that amount.

Depreciation Expense Capitalized O&M. Russellville reports a test-period level of depreciation expense capitalized O&M of \$17,474. The Commission has increased test-period depreciation expense by \$1,580 to a pro forma level of \$172,054 as follows:

<u>Item</u>	<u>Expenditure</u>	<u>Life</u>	<u>Depreciation Expense</u>
Meters	\$ 355	10	\$ 36
Meter Boxes	2,762	40	69
Services	8,283	40	207
Electronic Meter Reader	1,711	10	171
Valves	3,698	40	92
Filter Sand/Anthracite	5,005	40	125
Water Line Construction	29,100	40	728
Electrode	537	40	54
Hydrants	3,917	40	98
Depreciation Adjustment			<u>\$1,580</u>

Amortization Expense. Based upon our review of the reported CMA expenses Russellville reported as associated with rate cases,<sup>11</sup> we have determined that cost incurred for this proceeding is approximately \$10,193. We have increased Russellville's operating expenses by \$4,638 to reflect amortizing allowable rate case cost of \$10,193 over 3 years and the pump repairs over 10 years.

Payroll Taxes. Payroll taxes are dependent upon salaries and wages. Any adjustment to the salaries and wages expenses requires a corresponding adjustment to payroll tax expense. Using the pro forma payroll and the appropriate payroll tax rates, the Commission has calculated a pro forma level of payroll tax expense of \$40,377 and has increased Russellville's operating expenses by that amount.

Summary. The Commission finds that, based upon Russellville's adjusted pro forma operations, its total operating expenses for the test period are \$1,429,017. A summary of these expenses is set forth in Table I.

Debt Service Requirements.

During the test period, Russellville had five outstanding long-term debt obligations. As shown in Table II, the debt service requirements associated with its bonds and KIA loan are \$295,857 and \$97,679, respectively. Russellville proposes to include in these requirements debt service associated for revenues lost when its water treatment plant was temporarily closed in 1999. Since inclusion of this amount would effectively require the Districts to pay for service that was not rendered, we find it should be excluded for rate-making purposes from the calculation of Russellville's debt service

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<sup>11</sup> Letter from C. Robert Hodges, Russellville City Attorney to Gerald Wuetcher, Counsel, Public Service Commission (Sept. 30, 2002), Enclosure 7. When determining reasonable rate case expense, we have included all expenses associated with the cost-of-service study preparation and review and all legal fees incurred by Russellville's counsel of record on and after the date of the filing of Russellville's proposed rate.

requirement. Using a debt service coverage ( DSC ) of 120 percent for the bonds, and a DSC of 100 percent for the KIA loan, the Commission finds that Russellville's DSC requirement is \$441,115.<sup>12</sup>

#### COST-OF-SERVICE STUDY

Russellville submitted a cost-of-service study to support its proposed wholesale rate of \$2.45. While generally accepting this study, the Commission has made certain adjustments to more accurately reflect Russellville's cost of providing wholesale service to the Districts.

Russellville proposes to allocate 10 percent of total water produced to plant use. Mr. Dickinson, the study's author, testified that this allocation is based upon estimates and not on actual usage measurements. Because Russellville's treatment plant's meters were not properly registering water flows, Russellville lacked any means of determining the level of finished water pumped from the plant.<sup>13</sup> The amount of line loss was estimated using the plant use, free water and total sales less total produced.<sup>14</sup> At the hearing, Mr. Dickinson acknowledged that plant use is generally between 4 and 5 percent.<sup>15</sup> He further testified that plant use could be higher due to the size of lines used and Russellville's continuous operation of the plant.<sup>16</sup>

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<sup>12</sup> Adjusted Bond Debt Service	\$ 286,196
Multiplied by: 1.2x	x 1.2
Subtotal	\$ 343,435
Add: KIA Loan Debt Service	+ 97,679
Required DSC	<u>\$ 441,114</u>

<sup>13</sup> Transcript at 27.

<sup>14</sup> Id. at 31.

<sup>15</sup> Id. at 61.

<sup>16</sup> Id.



Based upon our review of the record, we find that Russellville failed adequately to demonstrate that 10 percent of total water produced should be allocated to plant use. The Commission notes that, generally, plant use for most water utilities is 3 to 4 percent. While we acknowledge that exceptions to this general rule exist, such exceptions are supported with reliable metering data. In this case, Russellville has failed to present such evidence. Recognizing that Russellville operates its plant 24 hours per day, the Commission has allocated 5 percent of total water produced to plant use.

The Commission finds that Russellville failed accurately to allocate transmission and distribution expenses. Russellville uses a factor of 0.3632 to allocate transmission and distribution expenses. It determined this factor by multiplying the use factor of 0.4606 by .7923. The factor .7923 represents quotient of the jointly used feet of transmission pipeline divided by the total feet of transmission pipeline.<sup>17</sup> The Commission has determined that total transmission and distribution expenses should be allocated based on system inch-miles. By not including all of Russellville's system in the calculation, total costs are being allocated using only a small portion of the system. The Commission has based its factor on the jointly used inch-miles divided by the total inch-miles of pipe. This results in a transmission and distribution factor of 0.1381.<sup>18</sup>

Since Russellville did not propose to include depreciation expense capitalized O&M expense in its wholesale rate, we have not included this expense in the allocation of wholesale costs. As Russellville allocated depreciation expense bonded facilities to

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<sup>17</sup> Russellville's Response to the Commission's Order of July 3, 2002, Item 20, Table 13.

<sup>18</sup>  $(207,175.9 / 449,840.8) \times (96.59 / 322.05) = 0.1381$ .

its wholesale costs, the Commission has allocated a portion of this expense to the Districts. Finally, we have allocated 50 percent of Russellville's total rate case expense of \$3,397 to the wholesale customers.

Based upon these adjustments, the Commission finds that the appropriate rate for wholesale water service is \$2.24 per 1,000 gallons. Our calculations of the cost of wholesale service are set forth in Tables I through VII of this Order.

### SUMMARY

After reviewing the evidence of the record and being otherwise sufficiently advised, the Commission finds that:

1. Based upon its adjusted operations for Fiscal Year 2002, Russellville requires \$1,870,041 annually to meet its reasonable operating expenses, including depreciation, and to service its outstanding debt obligations.

2. Based upon Russellville's adjusted test-period operations, Russellville's total annual revenue requirement to provide water service to the Districts is \$464,094.

3. Based upon Russellville's sales to the Districts during Fiscal Year 2002, a wholesale rate of \$2.24 per 1,000 gallons of water will produce annual revenue sufficient to meet Russellville's cost of serving the Districts.

4. The rate proposed by Russellville is unreasonable and should be denied.

IT IS THEREFORE ORDERED that:

1. The rate proposed by Russellville is denied.

2. The rate of \$2.24 per 1,000 gallons of water is approved for water service rendered by Russellville to Logan Districts on and after the date of this Order.

3. Within 30 days of the date of this Order, Russellville shall file revised tariff sheets reflecting the rate approved herein.

Done at Frankfort, Kentucky, this 21st day of October, 2002.

By the Commission

ATTEST:

  
Executive Director



**TABLE I**

<b>ADJUSTED TEST YEAR OPERATING EXPENSES</b>			
	<u>Actual Operating Expenses</u>	<u>Pro Forma Adjustments</u>	<u>Pro Forma Operating Expenses</u>
Operating Expenses:			
Operation & Maintenance:			
Power	\$ 194,938	\$ 0	\$ 194,938
Salaries & Wages	550,197	(66,792)	483,405
Chemicals	83,692	0	83,692
Testing/Analysis Fees	0	13,488	13,488
Office	9,102	0	9,102
Other	1,158	0	1,158
Uniforms	8,351	0	8,351
Building Maintenance	5,402	0	5,402
Vehicle Maintenance	15,195	0	15,195
Other Maintenance	39,132	(33,092)	6,040
Gas & Oil	6,618	0	6,618
Utilities	11,380	0	11,380
Water Line Maintenance	60,638	(37,141)	23,497
Repair & Maintenance	500	0	500
Retirement Insurance	149,519	0	149,519
Workers Compensation	14,874	0	14,874
KIA Service Fee	0	1,479	1,479
Vacation	6,657	0	6,657
Travel	1,065	0	1,065
Legal/Professional	64,273	(35,951)	28,322
Safety	7,584	0	7,584
Training	747	0	747
Property /Liability Insurance	<u>33,010</u>	<u>0</u>	<u>33,010</u>
Total Operation & Maintenance	\$1,264,032	\$(158,009)	\$1,106,023
Depreciation - Capitalized O&M	170,474	1,580	172,054
Depreciation - Bonded Facilities	105,925	0	105,925
Amortization - Pump Repairs	0	1,241	1,241
Amortization - Rate Case Expense	0	3,397	3,397
Payroll Taxes	0	40,377	40,377
Total Operating Expenses	<u>\$1,540,431</u>	<u>\$(111,414)</u>	<u>\$1,429,017</u>

**TABLE II**

DEBT SERVICE							
Year	Bonds						KIA 1993
	Series 1998		Series 1972	Series 1991	Series 1999	Bond Debt Service	
	Total Debt Service	Water Allocation 9.033%					
2003	408,580	36,907	13,573	8,725	234,538	293,743	97,679
2004	410,943	37,120	13,573	8,625	236,718	296,036	97,679
2005	<u>407,876</u>	<u>36,843</u>	<u>13,573</u>	<u>9,025</u>	<u>238,348</u>	<u>297,789</u>	<u>97,679</u>
	<u>1,227,399</u>	<u>110,870</u>	<u>40,719</u>	<u>26,375</u>	<u>709,604</u>	<u>887,568</u>	<u>293,037</u>
Average	409,133	36,957	13,573	8,792	236,535	295,856	97,679

**TABLE III**

<b>WATER PRODUCED AND SOLD</b>		
	Gallons	Percent
Water Produced	577,635.6	
Retail Sales	242,665.0	53.94%
Sales to Wholesale	207,175.9	46.06%
Total Sales	449,840.9	
Plant Use	28,881.8	5.00%
Line Loss	98,912.9	
Less Unmetered Buildings	788.9	
Other	6,480.0	
Actual Loss	91,644.00	15.87%

**TABLE IV**

<b>JOINTLY USED LINES</b>				
Line Size	Miles of Line	Inch-Miles	Jointly Used Miles	Jointly Used Inch-Miles
0.75	0.45	0.34		
1.00	1.52	1.52		
1.25	2.42	3.03		
1.50	1.12	1.68		
2.00	13.79	27.58		
2.50	0.49	1.23		
3.00	0.95	2.84		
4.00	5.59	22.35		
6.00	20.31	121.88	2.37	14.20
8.00	6.34	50.68	3.10	24.77
10.00	5.26	52.56	3.47	34.66
12.00	3.03	36.36	1.91	22.95
Total	61.27	322.05	10.84	96.59



**TABLE V**

<b>WHOLESALE ALLOCATION FACTORS</b>			
Line Loss Percentage	15.00%		
Plant Use Percentage	5.00%		
Total Plant Use and Line Loss	20.00%		
Russellville Production Multiplier	$1 / 1 - 0.2000$	1.2500	
Wholesale Inch Mile Ratio	$96.59 / 322.05$	0.2999	
Wholesale Share of Line Loss	$0.2999 * .15$	0.0450	
Joint Share of Plant Use and Line Loss	$.0450 + .0500$	0.0950	
Wholesale Production Multiplier	$1 / 1 - .0950$	1.1050	
Production Allocation Factor	$\frac{207,175.9}{449,840.9} \times \frac{1.1050}{1.2500}$		0.4071
Pipeline Transmission Factor	$\frac{207,175.9}{449,840.9} \times 0.2999$		0.1381
Commodity Factor	$\frac{207,175.9}{449,840.9}$		0.4606

**TABLE VI**

<b>ALLOCATION OF EXPENSES</b>				
Expense	Total	Treatment	Transmission and Distribution	Customer
<b>Water Treatment</b>				
Power	\$194,938	\$194,938		
Salaries and Payroll Taxes	154,427	154,427		
Ret. Ins. And Workers Comp.	49,318	49,318		
Chemicals	83,692	83,692		
Testing	13,488	13,488		
Other	15,938	15,938		
<b>Transmission</b>				
Salaries and Payroll Taxes	86,643		86,643	
Ret. Ins. And Workers Comp.	27,947		27,947	
Other	22,784		22,784	
<b>Booster</b>				
Salaries and Payroll Taxes	11,883		11,883	
Ret. Ins. And Workers Comp.	3,288		3,288	
Amortization - Pump Repairs	1,241		1,241	
Other	3,264		3,264	
<b>Distribution</b>				
Salaries and Payroll Taxes	129,964		129,964	
Ret. Ins. And Workers Comp.	41,098		41,098	
Other	28,225		28,225	
<b>Customer Accounts</b>				
Salaries and Payroll Taxes	57,881			57,881
Ret. Ins. And Workers Comp.	18,083			18,083
Other	3,165			3,165
Subtotal	947,267	511,801	356,337	79,129
Percentage - less commodity			0.8183	0.1817
<b>Administrative and General</b>				
Salaries and Payroll Taxes	81,326		66,548	14,778
Ret. Ins. And Workers Comp.	26,303		21,523	4,780
KIA Service Fee	1,479		1,210	269
Other	91,266		74,682	16,584
Depreciation Capitalized O&M	171,962	42,738	76,052	53,176
Depreciation Bonded Facilities	<u>105,925</u>	<u>84,719</u>	<u>350</u>	<u>20,856</u>
Total Operating Expenses	<u>\$1,425,528</u>	<u>\$639,258</u>	<u>\$596,703</u>	<u>\$189,571</u>

**TABLE VII**

<b>WHOLESALE RATE</b>				
<u>Expense</u>	<u>Total</u>	<u>Allocation Factor</u>	<u>Amount to Wholesale</u>	<u>Rate to Wholesale</u>
Water Treatment	\$511,801	0.4071	\$208,354	\$1.01
Transmission and Distribution	520,300	0.1381	71,871	0.35
Customer	115,540			
Depreciation Capitalized	171,962			
Depreciation - Bonded Facilities				
Water Treatment	84,719	0.4071	34,489	0.17
Trans. and Dist.	350	0.1381	48	0.00
Customer or Other	20,856			
Debt Service				
Water Treatment	322,359	0.4071	131,232	0.63
Trans. and Dist.	118,757	0.1381	16,400	0.08
Rate Case Expense	3,397	0.5000	1,699	0.01
Wholesale Rate	\$1,870,041		\$464,094	<b>\$2.24</b>